



FEDERAL RESERVE SYSTEM

Docket No. OP- 1583

Federal Reserve Bank Services

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Notice.

SUMMARY: The Board of Governors of the Federal Reserve System (Board) has approved the private sector adjustment factor (PSAF) for 2018 of \$18.9 million and the 2018 fee schedules for Federal Reserve priced services and electronic access. These actions were taken in accordance with the Monetary Control Act of 1980, which requires that, over the long run, fees for Federal Reserve priced services be established on the basis of all direct and indirect costs, including the PSAF.

DATES: The new fee schedules become effective January 2, 2018.

FOR FURTHER INFORMATION CONTACT: For questions regarding the fee schedules: David C. Mills, Deputy Associate Director, (202) 530-6265; Emily Massaro, Financial Services Analyst, (202) 452-2493, Division of Reserve Bank Operations and Payment Systems. For questions regarding the PSAF: Lawrence Mize, Deputy Associate Director, (202) 452-5232; Max Sinthorntham, Senior Financial Analyst, (202) 452-2864, Division of Reserve Bank Operations and Payment Systems. For users of

Telecommunications Device for the Deaf (TDD) only, please call (202) 263-4869. Copies of the 2018 fee schedules for the check service are available from the Board, the Federal Reserve Banks, or the Reserve Banks' financial services web site at www.frb services.org.

I. Supplementary Information:

Private Sector Adjustment Factor, Priced Services Cost Recovery, and Overview of 2017 Price Changes

A. Overview — Each year, as required by the Monetary Control Act of 1980, the Reserve Banks set fees for priced services provided to depository institutions. These fees are set to recover, over the long run, all direct and indirect costs and imputed costs, including financing costs, taxes, and certain other expenses, as well as the return on equity (profit) that will have been earned if a private business firm provided the services. The imputed costs and imputed profit are collectively referred to as the private-sector adjustment factor (PSAF). From 2007 through 2016, the Reserve Banks recovered 101.8 percent of their total expenses (including imputed costs) and targeted after-tax profits or return on equity (ROE) for providing priced services.¹

¹ The 10-year recovery rate is based on the pro forma income statements for Federal Reserve priced services published in the Board's *Annual Report*. Effective December 31, 2006, the Reserve Banks implemented Statement of Financial Accounting Standards (SFAS) No. 158: *Employers' Accounting*

Table 1 summarizes 2016 actual, 2017 estimated, and 2018 budgeted cost-recovery rates for all priced services. Cost recovery is estimated to be 102.6 percent in 2017 and budgeted to be 100.0 percent in 2018.

Table 1

Aggregate Priced Services Pro Forma Cost and Revenue Performance ^a (dollars in millions)					
YEAR	1 ^b REVENUE	2 ^c TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 ^d TARGETED ROE	5 ^e RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2016 (actual)	434.1	410.5	23.7	4.1	104.7%
2017 (estimate)	442.3	426.3	16.0	4.6	102.6%
2018 (budget)	441.7	436.5	5.2	5.2	100.0%

a Calculations in this table and subsequent pro forma cost and revenue tables may be affected by rounding.

b Revenue includes imputed income on investments when equity is imputed at a level that meets minimum capital requirements and, when combined with liabilities, exceeds total assets.

c The calculation of total expense includes operating, imputed, and other expenses. Imputed and other expenses include taxes, Board of Governors' priced services expenses, the cost of float, and interest on imputed debt, if any. Credits or debits related to the accounting for pension plans under FAS 158 [ASC 715] are also included.

d Targeted ROE is the after-tax ROE included in the PSAF.

e The recovery rates in this and subsequent tables do not reflect the unamortized gains or losses that must be recognized in accordance with FAS 158 [ASC 715]. Future gains or losses, and their effect on cost recovery, cannot be projected.

Table 2 provides an overview of cost-recovery budgets, estimates, and performance for the 10-year period from 2007 to 2016, 2016 actual, 2017 budget, 2017 estimate, and 2018 budget by priced service.

Table 2

for Defined Benefit Pension and Other Postretirement Plans [Accounting Standards Codification (ASC) 715 *Compensation – Retirement Benefits*], which resulted in recognizing a cumulative reduction in equity related to the priced services' benefit plans. Including this cumulative reduction in equity from 2007 to 2016 results in cost recovery of 95.6 percent for the ten-year period. This measure of long-run cost recovery is also published in the Board's *Annual Report*.

Priced Services Cost Recovery (percent)					
PRICED SERVICE	2007-2016	2016 ACTUAL	2017 BUDGET ^A	2017 ESTIMATE	2018 BUDGET ^B
All services	101.8	104.7	100.0	102.6	100.0
Check	102.7	112.7	104.1	104.8	101.2
FedACH	99.1	98.8	95.7	97.8	96.2
Fedwire Funds and NSS	101.3	103.3	101.1	105.9	104.0
Fedwire Securities	102.2	99.2	97.8	103.1	97.2

a The 2017 budget figures reflect the final budgets as approved by the Board in December 2016.

b The 2018 budget figures reflect preliminary budget information from the Reserve Banks. The Reserve Banks will submit final budget data to the Board in November 2017, for Board consideration in December 2017.

1. *2017 Estimated Performance* — The Reserve Banks estimate that they will recover 102.6 percent of the costs of providing priced services in 2017, including total expense and targeted ROE, compared with a 2017 budgeted recovery rate of 100.0 percent, as shown in table 2. Overall, the Reserve Banks estimate that they will fully recover actual and imputed costs and earn net income of \$16.0 million, compared with the targeted ROE of \$4.6 million. The Reserve Banks estimate that the check service, the Fedwire[®] Funds and National Settlement Services, and the Fedwire Securities Service will achieve full cost recovery; however, the Reserve Banks continue to estimate that the FedACH[®] Service will not achieve full cost recovery because of investment costs associated with the multiyear technology initiative to modernize its processing platform.² This investment

² The Reserve Banks have been engaged in a multiyear technology initiative to modernize the FedACH processing platform by migrating the service from a mainframe system to a distributed computing environment.

is expected to enhance efficiency, the overall quality of operations, and the Reserve Banks' ability to offer additional services to depository institutions.

2. *2018 Private-Sector Adjustment Factor* — The 2018 PSAF for Reserve Bank priced services is \$18.9 million. This amount represents an increase of \$2.3 million from the 2017 PSAF of \$16.6 million. This increase is primarily the result of an increase in the total cost of capital and sales taxes offset by a decrease in Board of Governors expenses.

3. *2018 Projected Performance* — The Reserve Banks project a priced services cost recovery rate of 100.0 percent in 2018, with both net income and targeted ROE of \$5.2 million. The Reserve Banks project that the price changes will result in a 1.4 percent average price increase for customers. The Reserve Banks project that the check service and the Fedwire Funds and National Settlement Services will fully recover their costs; however, the Reserve Banks project that the FedACH Service and the Fedwire Securities Service will not achieve full cost recovery. Although FedACH is not budgeted to fully recover its costs in 2018, the Reserve Banks are expected to fully recover FedACH costs once the FedACH technology modernization project is complete, as well as over the long run. In addition, the Board believes the Reserve Banks' 2018 FedACH fee increases are consistent with a multiyear strategy of providing long-term

price stability for customers during a period of high expenses in the short-term as the technology is upgraded. Although Fedwire Securities Service is not budgeted to fully cover its costs in 2018, the Board believes the Reserve Banks will recover Fedwire Securities Service costs in the long run. In 2018 Fedwire Securities Service is projected to underrecover, due to volume declines driven by market changes.³

The primary risks to the Reserve Banks' ability to achieve their targeted cost recovery rates are unanticipated volume and revenue reductions and the potential for cost overruns from new and ongoing improvement initiatives. In light of these risks, the Reserve Banks will continue to refine their business and operational strategies to manage operating costs, increase product revenue, and to capitalize on efficiencies gained from technology initiatives.

4. *2018 Pricing* — The following summarizes the Reserve Banks' changes in fee schedules for priced services in 2018:

³ Fedwire Securities Service's ten-year average recovery rate in 2018 is 101.6 percent.

Check

- The Reserve Banks will reassign the tier placement of 478 forward and 977 return endpoints in the FedForward[®] and FedReturn[®] products, respectively.⁴
- The Reserve Banks will increase all per-item fees for the FedReturn product, except substitute check fees, by 3 percent, rounded to the nearest penny, based on the 2018 tier assignments.
- The Reserve Banks will lower the average daily forward receipt volume thresholds for tiers 1, 2, and 3 of the FedForward product Premium Daily Fee A, B, and C deposit options based on 2018 tier assignments.
- The Reserve Banks will increase fees for their paper check forward and return collection products to encourage depositors to shift volume away from legacy paper-related products. The Reserve Banks will increase the cash letter fee for paper forward deposits from \$10 to \$15, and increase the per-item fee for paper forward deposits and paper return deposits by \$1 to \$3.50 and \$6.50 respectively.
- The Reserve Banks will increase all fees for the FedImage[®] product by 10 percent (rounded to the nearest increment based upon the number of decimal places of the current fee).

⁴ The Reserve Banks evaluate and set tier assignments annually based on changes in the volume of items received by endpoints.

FedACH

- The Reserve Banks will increase the base origination and receipt per-item fees from \$0.0032 to \$0.0035. The Reserve Banks also will increase per-item volume-based discounts by \$0.0003 for certain origination discounts (depending on origination volume) and all receipt discounts.
- The Reserve Banks will increase the monthly FedACH Participation Fee from \$58 to \$65.

Fedwire Funds

- The Reserve Banks will decrease the Tier 3 per-item pre-incentive fee from \$0.17 to \$0.16 per transaction.⁵
- The Reserve Banks will decrease the Tier 3 per-item incentive fee, which is derived from the Tier 3 per-item pre-incentive fee, from \$0.034 to \$0.032.
- The Reserve Banks will decrease the payment notification origination surcharge from \$0.20 to \$0.01.

National Settlement Service (NSS)

- The Reserve Banks will keep prices at existing levels for the priced NSS products.

⁵ The per-item pre-incentive fee is the fee that the Reserve Banks charge for transfers that do not qualify for incentive discounts. The Tier 1 per-item pre-incentive fee applies to the first 14,000 transfers, the Tier 2 per-item pre-incentive fee applies to the next 76,000 transfers, and the Tier 3 per-item pre-incentive fee applies to any additional transfers. The Reserve Banks apply an 80 percent incentive discount to transfers that are more than 60 percent of a customer's historic benchmark volume.

Fedwire Securities

- The Reserve Banks will keep prices at existing levels for the priced Fedwire Securities products.

FedLine[®] Access Solutions

- The Reserve Banks will provide VPN devices directly to customers and include the provision of the devices in all FedLine Advantage[®], FedLine Command[®], and both FedLine Direct[®] packages.⁶ As a result, the \$1,500 new customer credit will be eliminated and the monthly access fees will increase, ranging from \$35 to \$100, but include the VPN devices.
- The Reserve Banks will introduce two new FedComplete[®] packages: FedComplete 100C Plus and FedComplete 200C Plus. The new FedComplete 100C Plus and 200C Plus packages, which use the same threshold volumes as the existing FedComplete packages, will include the FedLine Command access solution, rather than FedLine Advantage. FedComplete 100C Plus will be priced at \$1,375 per month and FedComplete 200C Plus will be priced at \$1,900 per month.
- The Reserve Banks will make six additional FedComplete package changes: (1) Add the SameDay ACH origination participation fee and surcharge; (2) remove the FedMail[®]-FedLine Exchange[®] Subscriber 5-pack, consistent with the previously announced unbundling of the FedMail service; (3) increase the

⁶ Historically, customers purchased their VPNs directly from a vendor.

price of the existing volume overage monthly surcharges for FedForward, from \$0.01 to \$0.037, FedReturn, from \$0.75 to \$0.82, FedACH origination, from \$0.0025 to \$0.0035, and Fedwire Funds origination, from \$0.70 to \$0.82; (4) implement FedReceipt[®], FedACH receipt, and Fedwire Funds receipt monthly surcharges of \$0.00005, \$0.00035, and \$0.082, respectively; (5) implement a threshold limit of 46 items for FedForward Cash Letters; and (6) adjust FedComplete package prices to maintain an effective discount of less than 20 percent compared to the cost of purchasing services separately.

- The Reserve Banks will increase the legacy software fee for FedLine Direct customers that have not converted to new IBM[®] MQ software. The fee will vary based on the number of customers remaining on the legacy system.

5. 2018 Price Index — Figure 1 compares indexes of fees for the Reserve Banks' priced services with the GDP price index.⁷ The price index for Reserve Bank priced services is projected to decrease approximately 1 percent in 2018 from 2017. The price index for Check 21 services is projected to decrease less than 1 percent. The price index for the FedACH Service is projected to decrease less than 1 percent. The price index for the Fedwire Funds and National Settlement Services is projected to decrease nearly 4 percent. The price index for the Fedwire Securities Services is

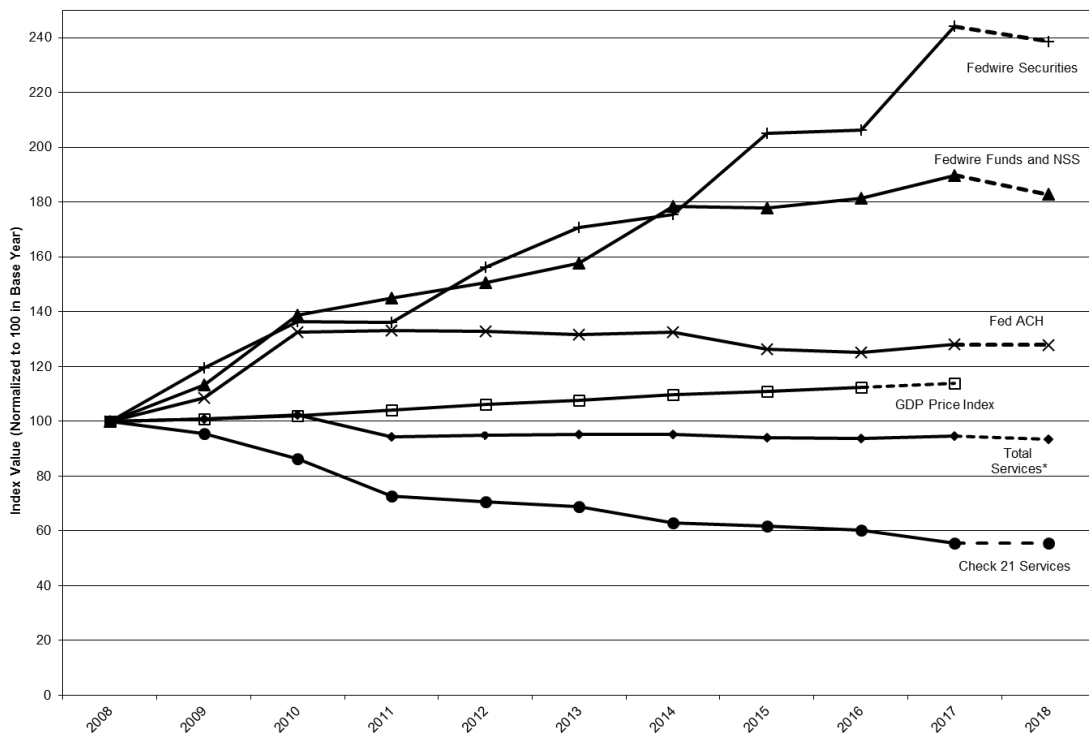
⁷ For the period 2008 to 2016, the GDP price index increased 12.3 percent.

projected to decrease approximately 2 percent. For the period 2008 to 2018, the price index for total priced services is expected to decrease nearly 7 percent.

FIGURE 1

2018 PRICE INDEX

PRICE INDEXES FOR FEDERAL RESERVE PRICED SERVICES



* Total Services excludes legacy paper services which now have minimal volume and are expected to generate less than \$1 million in revenue in 2017.

B. Private Sector Adjustment Factor — The imputed debt financing costs, targeted ROE, and effective tax rate are based on a U.S. publicly traded firm market model.⁸ The method for calculating the financing costs in the PSAF requires determining the appropriate imputed levels of debt and equity and then applying the applicable financing rates. In this process, a pro forma balance sheet using estimated assets and liabilities associated with the Reserve Banks' priced services is developed, and the remaining elements that will exist are imputed as if these priced services were provided by a private business firm. The same generally accepted accounting principles that apply to commercial-entity financial statements apply to the relevant elements in the priced services pro forma financial statements.

The portion of Federal Reserve assets that will be used to provide priced services during the coming year is determined using information about actual assets and projected disposals and acquisitions. The priced portion of these assets is determined based on the allocation of depreciation and amortization expenses of each asset class. The priced portion of actual Federal Reserve liabilities consists of postemployment and postretirement

⁸ Data for U.S. publicly traded firms is from the Standard and Poor's Compustat® database. This database contains information on more than 6,000 U.S. publicly traded firms, which approximates the entirety of the U.S. market.

benefits, accounts payable, and other liabilities. The priced portion of the actual net pension asset or liability is also included on the balance sheet.⁹

The equity financing rate is the targeted ROE produced by the capital asset pricing model (CAPM). In the CAPM, the required rate of return on a firm's equity is equal to the return on a risk-free asset plus a market risk premium. The risk-free rate is based on the three-month Treasury bill; the beta is assumed to be equal to 1.0, which approximates the risk of the market as a whole; and the market risk premium is based on the monthly returns in excess of the risk-free rate over the most recent 40 years. The resulting ROE reflects the return a shareholder will expect when investing in a private business firm.

For simplicity, given that federal corporate income tax rates are graduated, state income tax rates vary, and various credits and deductions can apply, an actual income tax expense is not explicitly calculated for Reserve Bank priced services. Instead, the Board targets a pretax ROE that will provide sufficient income to fulfill the priced services' imputed income tax obligations. To the extent that performance results are greater or less than the targeted ROE, income taxes are adjusted using the effective tax rate.

⁹ The pension assets are netted with the pension liabilities and reported as a net asset or net liability as required by ASC 715 *Compensation – Retirement Benefits*.

Capital structure. The capital structure is imputed based on the imputed funding need (assets less liabilities), subject to minimum equity constraints. Short-term debt is imputed to fund the imputed short-term funding need. Long-term debt and equity are imputed to meet the priced services long-term funding need at a ratio based on the capital structure of the U.S. publicly traded firm market. The level of equity must meet the minimum equity constraints, which follow the FDIC requirements for a well-capitalized institution. The priced services must maintain equity of at least 5 percent of total assets and 10 percent of risk-weighted assets.¹⁰ Any equity imputed that exceeds the amount needed to fund the priced services' assets and meet the minimum equity constraints is offset by a reduction in imputed long-term debt. When imputed equity is larger than what can be offset by imputed debt, the excess is imputed as investments in Treasury securities; income imputed on these investments reduces the PSAF.

Application of the Payment System Risk (PSR) Policy to the Fedwire Services. The Board's PSR policy reflects the new international standards

¹⁰ The FDIC rule, which was adopted as final on April 14, 2014, requires that well-capitalized institutions meet or exceed the following standards: (1) total capital to risk-weighted assets ratio of at least 10 percent, (2) tier 1 capital to risk-weighted assets ratio of at least 8 percent, (3) common equity tier 1 capital to risk-weighted assets ratio of at least 6.5 percent, and (4) a leverage ratio (tier 1 capital to total assets) of at least 5 percent. Because all of the Federal Reserve priced services' equity on the pro forma balance sheet qualifies as tier 1 capital, only requirements 1 and 4 are binding. The FDIC rule can be located at https://www.fdic.gov/news/board/2014/2014-04-08_notice_dis_c_fr.pdf.

for financial market infrastructures (FMIs) developed by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions in the *Principles for Financial Market Infrastructures*.¹¹ The revised policy retains the expectation that the Fedwire Services meet or exceed the applicable risk-management standards. Principle 15 states that an FMI will identify, monitor, and manage general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialize. Further, liquid net assets will at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services. The Fedwire Services do not face the risk that a business shock will cause the service to wind down in a disorderly manner and disrupt the stability of the financial system. In order to foster competition with private-sector FMIs, however, the Reserve Banks' priced services will hold six months of the Fedwire Funds Service's current operating expenses as liquid financial assets and equity on the pro forma balance sheet.¹² Current operating expenses are defined as normal business operating expenses on the income

¹¹ See, Bank For International Settlements, <https://www.bis.org/cpmi/publ/d101a.pdf>.

¹² This requirement does not apply to the Fedwire Securities Service. There are no competitors to the Fedwire Securities Service that will face such a requirement, and imposing such a requirement when pricing the securities services could artificially increase the cost of these services.

statement, less depreciation, amortization, taxes, and interest on debt. Using the Fedwire Funds Service's preliminary 2018 budget, six months of current operating expenses will be \$51.4 million. In 2018, \$1.5 million of equity was imputed to meet the FDIC capital requirements. No additional imputed equity was necessary to meet the PSR policy requirement.

Effective tax rate. Like the imputed capital structure, the effective tax rate is calculated based on data from U.S. publicly traded firms. The tax rate is the mean of the weighted average rates of the U.S. publicly traded firm market over the past 5 years.

Debt and equity financing. The imputed short- and long-term debt financing rates are derived from the nonfinancial commercial paper rates from the Federal Reserve Board's H.15 Selected Interest Rates release (AA and A2/P2) and the annual Merrill Lynch Corporate & High Yield Index rate, respectively. The rates for debt and equity financing are applied to the priced services estimated imputed short-term debt, long-term debt, and equity needed to finance short- and long-term assets and meet equity requirements.

The increase in the 2018 PSAF to \$18.9 million from \$16.6 million in 2017 is primarily attributable to a \$1.1 million increase in the cost of debt and a \$0.8 million increase in the return on equity, both driven by increased

imputed funding needs for long-term assets arising from a higher net pension asset balance. System sales tax expenses increased by \$0.7 million and were offset, in part, by a \$0.3 million decrease in Board of Governors expenses.

Projected 2018 Federal Reserve priced services assets, reflected in table 3, have decreased \$186.8 million from 2017. This decrease is primarily due to a \$154.0 million decrease in the balance of items in process of collection and a \$70.2 million decrease in imputed investments in federal funds, offset by a net increase of \$35.7 million in the long-term assets inclusive of net pension asset; Bank premises, furniture, and equipment; and deferred charges. The decrease in net short-term assets to be financed of \$3.6 million had a minimal effect on the PSAF. Net credit float (items in process of collection less deferred credit items) decreased by \$154.0 million, primarily attributable to the continued effect of new deposit deadlines associated with the Endpoint Cut service deposit deadlines implemented in July 2016, which were intended to reduce float and items in process of collection. The decrease in net credit float had an equivalent effect on the balance of imputed investments in Treasury securities. The resulting balance of 2018 imputed investments in federal funds was sufficient to comply with the PSR policy expectations for Fedwire Funds, and no additional costs were incurred. As shown in table 3, imputed equity for

2018 is \$57.8 million, a decrease of \$0.7 million from the equity imputed for 2017. In accordance with ASC 715, this amount includes an accumulated other comprehensive loss of \$637.2 million.

Table 4 reflects the portion of short- and long-term assets that must be financed with actual or imputed liabilities and equity. Debt and equity imputed to fund the 2018 priced services assets within the observed market leverage ratio produced an equity level that did not meet the FDIC minimum equity requirements. As a result, additional equity was imputed to meet the FDIC requirements, and imputed long-term debt was reduced. The ratio of capital to risk-weighted assets meets the required 10 percent of risk-weighted assets, and equity exceeds 5 percent of total assets (table 6). In 2018, long-term debt and equity was imputed to meet the asset funding requirements and reflects the leverage ratio observed in the market; additional equity of \$1.5 million was required (table 5) to meet the market leverage ratio.

Table 5 shows the derivation of the 2018 and 2017 PSAF. Financing costs for 2018 are \$1.9 million higher than in 2017. The allocation of equity based on the capital structure observed in the market increased in 2018 to 41.8 percent from 41.6 percent in 2017. The increased equity balance and the slightly higher cost of equity result in a pretax ROE that is \$0.7 million

higher than the 2017 pretax ROE. Imputed sales taxes increased to \$3.9 million in 2018 from \$3.2 million in 2017. The priced services portion of the Board's expenses decreased \$0.3 million to \$5.1 million in 2018. The effective income tax rate used in 2018 was 22.7 percent, the same rate used in 2017.

Table 3
Comparison of Pro Forma Balance Sheets for Budgeted Federal Reserve Priced Services
(millions of dollars – projected average for year)

	2018	2017	Change
Short-term assets			
Receivables	\$ 36.6	\$ 36.6	\$ 0.0
Materials and supplies	0.5	0.6	(0.1)
Prepaid expenses	13.0	11.2	1.8
Items in process of collection ¹³	87.0	241.0	(154.0)
Total short-term assets	137.1	289.4	(152.3)
Imputed investments¹⁴			
Imputed investment in Treasury Securities	\$ -	\$ -	\$ -
Imputed investment in Fed Funds	174.8	245.0	(70.2)
Total imputed investments	174.8	245.0	(70.2)
Long-term assets			
Premises ¹⁵	\$ 103.9	\$ 128.7	\$ (24.8)
Furniture and equipment	38.9	39.0	(0.1)
Leasehold improvements and long-term prepayments	100.3	104.8	(4.5)
Net pension asset	76.6	10.9	65.7
Deferred tax asset	185.6	186.1	(0.5)
Total long-term assets	505.3	469.6	35.7
Total assets	<u>\$ 817.2</u>	<u>\$ 1,003.9</u>	<u>\$ (186.8)</u>
Short-term liabilities			
Deferred credit items	\$ 261.8	\$ 486.0	\$ (224.2)
Short-term debt	14.5	18.1	(3.6)
Short-term payables	35.6	30.2	5.3
Total short-term liabilities	311.9	534.4	(222.5)
Long-term liabilities			
Pension liability	\$ -	\$ -	\$ -
Long-term debt	76.9	48.4	28.5
Postemployment/postretirement benefits and net pension liabilities ¹⁶	370.5	362.5	8.0
Total liabilities	<u>\$ 759.3</u>	<u>\$ 945.3</u>	<u>\$ (186.0)</u>
Equity¹⁷	<u>\$ 57.8</u>	<u>\$ 58.6</u>	<u>\$ (0.7)</u>

¹³ Credit float, which represents the difference between items in process of collection and deferred credit items, occurs when the Reserve Banks debit the paying bank for transactions prior to providing credit to the depositing bank. Float is directly estimated at the service level.

¹⁴ Consistent with the Board's PSR policy, the Reserve Banks' priced services will hold six months of the Fedwire Funds Service's current operating expenses as liquid net financial assets and equity on the pro forma balance sheet. Six months of the Fedwire Funds Service's projected current operating expenses is \$51.4 million. In 2018, \$57.8 million of equity was imputed to meet the regulatory capital requirements.

¹⁵ Includes the allocation of Board of Governors assets to priced services of \$1.1 million for 2018 and \$1.2 million for 2017.

¹⁶ Includes the allocation of Board of Governors liabilities to priced services of \$0.6 million for 2018 and 2017.

¹⁷ Includes an accumulated other comprehensive loss of \$637.2 million for 2018 and \$635.1 million for 2017, which reflects the ongoing amortization of the accumulated loss in accordance with FAS 158 [ASC 715]. Future gains or losses, and their effects on the pro forma balance sheet, cannot be projected. See table 5 for calculation of required imputed equity amount.

Total liabilities and equity	<u>\$ 817.2</u>	<u>\$ 1,003.9</u>	<u>\$ (186.8)</u>
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Table 4
Imputed Funding for Priced-Services Assets
(millions of dollars)

	2018	2017
A. Short-term asset financing		
Short-term assets to be financed		
Receivables	\$ 36.6	\$ 36.6
Materials and supplies	0.5	0.6
Prepaid expenses	13.0	11.2
Total short-term assets to be financed	<u>\$ 50.1</u>	<u>\$ 48.4</u>
Short-term payables	35.6	30.2
Net short-term assets to be financed	<u>\$ 14.5</u>	<u>\$ 18.1</u>
Imputed short-term debt financing ¹⁸	<u>\$ 14.5</u>	<u>\$ 18.1</u>
B. Long-term asset financing		
Long-term assets to be financed		
Premises	\$ 103.9	\$ 128.7
Furniture and equipment	38.9	39.0
Leasehold improvements and long-term prepayments	100.3	104.8
Net pension asset	76.6	10.9
Deferred tax asset	185.6	186.1
Total long-term assets to be financed	<u>\$ 505.3</u>	<u>\$ 469.6</u>
Net pension liability	-	-
Postemployment/postretirement benefits and net pension liabilities	370.5	362.5
Net long-term assets to be financed	<u>\$ 134.8</u>	<u>\$ 107.0</u>
Imputed long-term debt ¹⁸	\$ 76.9	\$ 48.4
Imputed equity ¹⁸	57.8	58.6
Total long-term financing	<u>\$ 134.8</u>	<u>\$ 107.0</u>

¹⁸ See table 5 for calculation.

Table 5
Derivation of the 2018 and 2017
PSAF(dollars in millions)

	2018		2017	
A. Imputed long-term debt and equity				
	<u>Debt</u>	<u>Equity</u>	<u>Debt</u>	<u>Equity</u>
Net long-term assets to finance	\$ 134.8	\$ 134.8	\$ 107.0	\$ 107.0
Capital structure observed in market	58.2%	41.8%	58.4%	41.6%
Pre-adjusted long-term debt and equity	\$ 78.4	\$ 56.4	\$ 62.5	\$ 44.5
Equity adjustments ¹⁹ :				
Equity to meet capital requirements	—	57.8	-	58.6
Adjustment to debt and equity funding given capital requirements ²⁰	(1.5)	1.5	(14.1)	14.1
Adjusted equity balance	—	57.8	—	58.6
Equity to meet capital requirements ²¹	—	—	—	—
Total imputed long-term debt and equity	<u>\$ 76.9</u>	<u>\$ 57.8</u>	<u>\$ 48.4</u>	<u>\$ 58.6</u>
B. Cost of capital				
Elements of capital costs				
Short-term debt ²²	\$ 14.5 x 1.3% =	\$ 0.2	\$ 18.1 x 0.6% =	\$ 0.1
Long-term debt ²²	76.9 x 3.8% =	3.0	48.4 x 4.0% =	1.9
Equity ²³	57.8 x 11.7% =	6.7	58.6 x 10.2% =	6.0
		<u>\$ 9.9</u>		<u>\$ 8.0</u>
C. Incremental cost of PSR policy				
Equity to meet policy	\$ - x 11.7% =	\$ -	\$ - x 10.2% =	\$ -
D. Other required PSAF costs				
Sales taxes	\$ 3.9		\$ 3.2	
Board of Governors expenses	<u>5.1</u>		<u>5.4</u>	
		9.0		8.6
		<u>\$ 18.9</u>		<u>\$ 16.6</u>
E. Total PSAF				
As a percent of assets		2.3%		1.5%
As a percent of expenses		4.1%		3.9%
F. Tax rates		22.7%		22.7%

¹⁹ If minimum equity constraints are not met after imputing equity based on the capital structure observed in the market, additional equity is imputed to meet these constraints. The long-term funding need was met by imputing long-term debt and equity based on the capital structure observed in the market (see tables 4 and 6). In 2018, the amount of imputed equity met the minimum equity requirements for risk-weighted assets.

²⁰ Equity adjustment offsets are due to a shift of long-term debt funding to equity in order to meet FDIC capital requirements for well-capitalized institutions.

²¹ Additional equity in excess of that needed to fund priced services assets is offset by an asset balance of imputed investments in treasury securities.

²² Imputed short-term debt and long-term debt are computed at table 4.

²³ The 2017 ROE is equal to a risk-free rate plus a risk premium (beta * market risk premium). The 2017 after-tax CAPM ROE is calculated as 1.09% + (1.0 * 7.93%) = 9.03%. Using a tax rate of 22.7%, the after-tax ROE is converted into a pretax ROE, which results in a pretax ROE of (9.03% / (1-22.7%)) = 11.67%. Calculations may be affected by rounding.

Table 6

Computation of 2018 Capital Adequacy for Federal Reserve Priced Services
(dollars in millions)

	<u>Assets</u>	<u>Risk Weight</u>	<u>Weighted Assets</u>
Imputed investments:			
1-Year Treasury securities ²⁴	\$ -	-	\$ -
Federal funds ²⁵	174.8	0.2	35.0
Total imputed investments	174.8		35.0
Receivables	\$ 36.6	0.2	\$ 7.3
Materials and supplies	0.5	1.0	0.5
Prepaid expenses	13.0	1.0	13.0
Items in process of collection	87.0	0.2	17.4
Premises	103.9	1.0	103.9
Furniture and equipment	38.9	1.0	38.9
Leasehold improvements and long-term prepayments	100.3	1.0	100.3
Net pension asset	76.6	1.0	76.6
Deferred tax asset	185.6	1.0	185.6
 Total	 \$ 817.2		 \$ 578.4
Imputed equity:			
Capital to risk-weighted assets	10.0%		
Capital to total assets	7.1%		

²⁴ If minimum equity constraints are not met after imputing equity based on all other financial statement components, additional equity is imputed to meet these constraints. Additional equity imputed to meet minimum equity requirements is invested solely in Treasury securities. The imputed investments are similar to those for which rates are available on the Federal Reserve's H.15 statistical release, which can be located at <http://www.federalreserve.gov/releases/h15/data.htm>.

²⁵ The investments are imputed based on the amounts arising from the collection of items prior to providing credit according to established availability schedules.

C. *Check Service* — Table 7 shows the 2016 actual, 2017 estimated, and 2018 budgeted cost-recovery performance for the commercial check service.

Table 7

Check Service Pro Forma Cost and Revenue Performance (dollars in millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGETED ROE	5 RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2016 (actual)	154.2	135.6	18.6	1.3	112.7%
2017 (estimate)	142.6	134.7	7.9	1.4	104.8%
2018 (budget)	135.4	132.2	3.1	1.6	101.2%

1. *2017 Estimate* —The Reserve Banks estimate that the check service will recover 104.8 percent of total expenses and targeted ROE, compared with a 2017 budgeted recovery rate of 104.1 percent. Greater-than-expected check volumes processed by the Reserve Banks and lower-than-expected costs have influenced the check service's cost recovery.

The decline in Reserve Bank check volume was not as great as previously anticipated. Through August, both total commercial forward and total commercial return check volumes were only 0.4 percent lower than they were during the same period last year. Consistent with anticipated fourth quarter declines, for full-year 2017, the Reserve Banks estimate that their total forward check volume will decline 1.3 percent (compared with a budgeted decline of 5.0 percent) and their total return check volume will

decline 1.0 percent (compared with a budgeted decline of 10.1 percent) from 2016 levels.²⁶

2. *2018 Pricing* — The Reserve Banks expect the check service to recover 101.2 percent of total expenses and targeted ROE in 2018. The Reserve Banks project revenue to be \$135.4 million, a decline of 5.0 percent from the 2017 estimate. This decline is driven in part by an anticipated continued general decline in the number of checks written and competition from correspondent banks, aggregators, and direct exchanges.²⁷ Total expenses for the check service are projected to be \$132.2 million, a decrease of \$2.5 million, or 1.9 percent, from 2017 expenses, primarily because of reduced operating costs, including cost savings associated with increased efficiencies of the Reserve Banks' customer support services.

The Reserve Banks evaluate and set tier assignments annually based on changes in the volume of items received by endpoints. In 2018, the Reserve Banks will reassign the tier placement of 478 forward and 977 return endpoints in the FedForward and FedReturn products, respectively.²⁸

²⁶ Total Reserve Bank forward check volumes are expected to be 5.2 billion in 2017. Total Reserve Bank return check volumes are expected to be 31.8 million in 2017.

²⁷ The Reserve Banks estimate that total commercial forward check volumes in 2018 will decline 4.7 percent, to 4.9 billion, and total commercial return check volumes will decline 3.5 percent, to 30.7 million in 2018.

²⁸ The tiers for 2018 are available at <https://www.frb services.org/resources/fees/check-2018.html>.

Based on these 2018 tier assignments, the Reserve Banks will for the FedReturn deposit options (FedReturn Standard ICL and FedReturn Premium Daily Fee A) increase all per-item fees, except substitute checks, by 3 percent, rounded to the nearest penny. Table 8 shows the 2018 fees.

Table 8

FedReturn Per-Item Fees			
FEDRETURN STANDARD ICL	9:00 PM	1:00 AM	12:30 PM
Tier 1	\$0.15	\$0.45	\$0.15
Tier 2	\$0.21	\$0.51	\$0.21
Tier 3	\$0.62	\$0.92	\$0.62
Tier 4	\$0.82	\$1.12	\$0.82
PDF	\$1.03	\$1.33	\$1.03
Substitute Check	\$1.50	\$1.50	\$1.50
FEDRETURN PREMIUM DAILY FEE A		1:00 AM	12:30 PM
Tier 0		\$0.01	\$0.03
Tier 1		\$0.05	\$0.07
Tier 2		\$0.10	\$0.12
Tier 3		\$0.52	\$0.54
Tier 4		\$0.72	\$0.74
PDF		\$0.93	\$0.95
Substitute Check		\$1.50	\$1.50

The Reserve Banks will also lower the average daily receipt volume thresholds for tiers 1, 2, and 3 of the FedForward daily subscription fee premium deposit options (FedForward Premium Daily Fee A, B, and C).²⁹

Table 9 shows the 2017 volume thresholds and the 2018 thresholds.

²⁹ As part of the Reserve Banks 2016 restructured FedForward and FedReturn fee schedules, the Reserve Banks use a volume-based tiered pricing structure to determine per-item fees based on the average daily receipt volume an endpoint receives from chartered institutions through the Reserve Banks. Tiers for the three premium variations of the Reserve Banks' daily subscription fee deposit options (FedForward Premium Daily Fee A, B, and C) are based only on volume received by the Reserve Banks' top 15 customers, which represent the likely users of the deposit options. These premium daily fee options include a fifth tier, Tier 0, composed of routing numbers for which the Reserve Banks currently receive little to no volume from the specified subset of Reserve Bank customers (and which therefore cannot currently be assigned to the other tiers with sufficient

Table 9

Forward Premium Daily Deposit Option Tier Volume Thresholds		
TIER	2017 AVERAGE DAILY FORWARD RECEIPT VOLUME ITEMS/DAY	2018 AVERAGE DAILY FORWARD RECEIPT VOLUME ITEMS/DAY
0	* See explanation below	* See explanation below
1	Over 30,000	Over 25,000
2	4,000 - 30,000	3,301 - 25,000
3	750 - 4,000	750 - 3,300
4	Less than 750	Less than 750

** Tier 0 consists of financial institutions that meet both of the following criteria:*

- 1. Less than 10 percent of their Reserve Bank forward receipt volume was deposited with the Reserve Banks by Premium Daily Fee depositors during the sample period, and*
- 2. Their average daily Reserve Bank forward receipt volume exceeded 150 items per day during the sample period.*

Together, these changes to the Reserve Banks' FedReturn pricing and FedForward Premium Daily Fee volume thresholds are intended to facilitate longer-term cost recovery for the check service while providing price stability for customers that may otherwise experience significant price fluctuations as a result of the Reserve Banks' 2018 tier assignments.

Finally, in light of today's electronic check-processing environment, the Reserve Banks will increase fees to encourage depositors to shift volume away from legacy paper-related products. The Reserve Banks will increase the cash letter fee for paper forward deposits from \$10 to \$15, and increase the per-item fee for paper forward deposits and paper return deposits by \$1 from \$2.50 to \$3.50 and from \$5.50 to \$6.50, respectively.³⁰ The Reserve

predictability). Tier 0 is evaluated annually, along with all other tiers and endpoints, and endpoints cannot be placed in Tier 0 if they have previously been assigned to one of the other tiers.

³⁰ Increases apply to both unencoded and encoded forward deposits, and qualified and unqualified return deposits. Unencoded forward items are those items deposited without encoding of certain

Banks will also increase all fees for the FedImage product 10 percent, rounded to the nearest decimal place.³¹ Table 10 shows the 2018 FedImage fees.

Table 10

FedImage Service Fees		
IMAGE ARCHIVE	FIXED FEE	PER ITEM FEE
Image Capture + 7 business day archive	\$5.50	\$0.0080
Image Capture On-Us Surcharge	-	\$0.0193
30 business day archive	-	\$0.0010
60 business day archive	-	\$0.0012
7-year archive / 11-year archive	-	\$0.0018
Dual archive (Transition period up to 120 days)	-	\$0.0011
Extended dual archive (More than 120 days)	-	\$0.0110
Back File Conversion	\$3.85	\$0.0110
Electronic On-Us Service	\$3.85	\$0.0110
<i>Extended RAID Storage</i>		
61 days to 6 months	-	\$0.0009
61 days to 12 months	-	\$0.0022
61 days to 24 months	-	\$0.0055
IMAGE RETRIEVALS		
Retrievals to view via FedLine Web [®] inquiry	-	\$0.3900
<i>Retrievals to email via FedLine Web</i>		
Request via FedLine Web inquiry	-	\$0.3900
Recurring request	-	\$0.3900
Image Access and Retrievals through a Gateway	-	\$0.3900
Subscription Retrievals	-	\$0.0024
Manual FedImage Requests (requests performed by FRB staff)	-	\$6.6000
IMAGE DELIVERY		
<i>Physical Media</i>		
CD-ROM Select Accounts Service - RAID	\$16.50	\$0.0170
CD-ROM - Tape	\$16.50	\$0.1100

elements, such as amount, added to the MICR line. Unqualified items are those return items that have not been prepared for automated processing.

³¹ Because of rounding, the individual price increases range from 9 percent to 12.5 percent.

The Reserve Banks estimate that the announced price changes will result in a 0.4 percent average price increase for check customers.

The primary risks to the Reserve Banks' ability to achieve budgeted 2018 cost recovery for the check service include greater-than-expected declines in check volume due to the general reduction in check writing and increased competition from correspondent banks, aggregators, and direct exchanges, which will result in lower-than-anticipated revenue.

D. *FedACH Service* — Table 11 shows the 2016 actual, 2017 estimate, and 2018 budgeted cost-recovery performance for the commercial FedACH service.

Table 11

FedACH Service Pro Forma Cost and Revenue Performance (dollars in millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGETED ROE	5 RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2016 (actual)	131.0	131.4	-0.3	1.3	98.8%
2017 (estimate)	141.3	142.9	-1.6	1.6	97.8%
2018 (budget)	148.5	152.4	-4.0	1.9	96.2%

1. *2017 Estimate* — The Reserve Banks estimate that the FedACH service will recover 97.8 percent of total expenses and targeted ROE, compared with a 2017 budgeted recovery rate of 95.7 percent, as the 2017 hiring freeze resulted in lower-than budgeted operating costs. Through August, FedACH commercial origination and receipt volume was

6.0 percent higher than it was during the same period last year. For full-year 2017, the Reserve Banks estimate that FedACH commercial origination and receipt volume will increase 5.8 percent from 2016 levels, in line with the budgeted increase of 5.7 percent.

2. 2018 Pricing — The Reserve Banks expect the FedACH service to recover 96.2 percent of total expenses and targeted ROE in 2018. FedACH commercial origination and receipt volume is projected to grow 5.2 percent, contributing to an increase of \$7.2 million in total revenue, from the 2017 estimate. Total expenses are projected increase \$9.5 million from 2017 expenses, primarily because of costs associated with the development of the new FedACH technology platform.

The Reserve Banks will increase the base per-item fees for origination and receipt from \$0.0032 to \$0.0035. The Reserve Banks will also increase per-item volume-based discounts by \$0.0003 for origination discounts based on origination volume and all receipt discounts. There are no changes to the existing origination volume discounts based on receipt volume. These changes provide an effective offset with no price change for customers meeting the volume discount thresholds. The Reserve Banks will also increase the monthly FedACH Participation Fee from \$58 to \$65.

The Reserve Banks estimate that the combined price changes will result in a 3.6 percent average price increase for FedACH customers.

While the Reserve Banks are not budgeted to fully recover costs in 2018, they are expected to fully recover costs following the finalization of the FedACH technology modernization project. To fully recover costs in 2018, fees will need to be significantly increased to cover the increased costs associated with the technology upgrade, which will result in significant overrecovery once the upgrade is complete. Instead the Reserve Banks continue to moderately increase FedACH fees to minimize pricing volatility and promote long-term price stability for customers.

The primary risks to the Reserve Banks' ability to achieve budgeted 2018 cost recovery for the FedACH service are unanticipated cost overruns associated with the FedACH technology modernization project and higher-than-expected support and overhead costs. Other risks include lower-than-expected volume and associated revenue due to unanticipated mergers and acquisitions and loss of market share due to exchanges directly between banks and volume shifts to the private-sector operator.

E. Fedwire Funds and National Settlement Services — Table 12 shows the 2016 actual, 2017 estimate, and 2018 budgeted cost-recovery performance for the Fedwire Funds and National Settlement Services.

Table 12

Fedwire Funds and National Settlement Services Pro Forma Cost and Revenue Performance (dollars in millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGETED ROE	5 RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2016 (actual)	123.0	117.8	5.3	1.3	103.3%
2017 (estimate)	130.0	121.6	8.5	1.3	105.9%
2018 (budget)	130.6	124.1	6.5	1.4	104.0%

1. *2017 Estimate* — The Reserve Banks estimate that the Fedwire Funds and National Settlement Services will recover 105.9 percent of total expenses and targeted ROE, compared with a 2017 budgeted recovery rate of 101.1 percent. Through August, Fedwire Funds Service online volume was 3.4 percent higher than it was during the same period last year. For full-year 2017, the Reserve Banks estimate that Fedwire Funds Services online volume will increase 1.1 percent from 2016 levels, compared with the 1.1 percent volume decrease that had been budgeted. Through August, the National Settlement Service (NSS) settlement file volume was 0.8 percent higher than it was during the same period last year, and settlement entry volume was 5.3 percent higher. For the full year, the Reserve Banks estimate that settlement file volume will increase 0.3 percent (compared with a budgeted 5.7 percent increase) and settlement entry volume will increase 4.0 percent from 2016 levels (compared with a budgeted 0.6 percent increase). The 2017 estimate for the NSS settlement file volume is lower

than budgeted because the 2017 budget included an assumption of additional arrangements that never materialized. The NSS settlement entry volume grew more than expected due to an existing arrangement that increased entries submitted by 50 percent.

2. 2018 Pricing — The Reserve Banks expect the Fedwire Funds and National Settlement Services to recover 104.0 percent of total expenses and targeted ROE. Revenue is projected to be \$130.6 million, an increase of 0.5 percent from the 2017 estimate. The Reserve Banks project total expenses to be \$2.5 million higher than the 2017 expenses, primarily reflecting investments in new initiatives to improve resiliency and operational functionality as well as other business and technology initiatives.

The Reserve Banks will adjust the incentive pricing fees for the Fedwire Funds Service by decreasing the Tier 3 per-item pre-incentive fee from \$0.17 to \$0.16.³² The Tier 3 per-item incentive fee, which is derived from the Tier 3 per-item pre-incentive fee, will decrease from \$0.034 to \$0.032. The Reserve Banks will also decrease the payment notification origination surcharge from \$0.20 to \$0.01. The Reserve Banks estimate that

³² The per-item pre-incentive fee is the fee that the Reserve Banks charge for transfers that do not qualify for incentive discounts. The Tier 1 per-item pre-incentive fee applies to the first 14,000 transfers, the Tier 2 per-item pre-incentive fee applies to the next 76,000 transfers, and the Tier 3 per-item pre-incentive fee applies to any additional transfers. The Reserve Banks apply an 80 percent incentive discount to transfers once the volume of transfers is greater than 60 percent of a customer's historic benchmark volume.

the price changes will result in a 1.2 percent average price decrease for Fedwire Funds customers.

The Reserve Banks will not change NSS fees for 2018.

The primary risks to the Reserve Banks' ability to achieve budgeted 2018 cost recovery for these services are cost overruns from new initiatives to improve resiliency and operational functionality.

F. Fedwire Securities Service — Table 13 shows the 2016 actual, 2017 estimate, and 2018 budgeted cost recovery performance for the Fedwire Securities Service.³³

Table 13

Fedwire Securities Service Pro Forma Cost and Revenue Performance (dollars in millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGETED ROE	5 RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2016 (actual)	25.9	25.8	0.0	0.2	99.2%
2017 (estimate)	28.4	27.3	1.1	0.3	103.1%
2018 (budget)	27.3	27.7	-0.4	0.3	97.2%

1. 2017 Estimate — The Reserve Banks estimate that the Fedwire Securities Service will recover 103.1 percent of total expenses and targeted

³³ The Reserve Banks provide transfer services for securities issued by the U.S. Treasury, federal government agencies, government-sponsored enterprises, and certain international institutions. The priced component of this service, reflected in this memorandum, consists of revenues, expenses, and volumes associated with the transfer of all non-Treasury securities. For Treasury securities, the U.S. Treasury assesses fees for the securities transfer component of the service. The Reserve Banks assess a fee for the funds settlement component of a Treasury securities transfer; this component is not treated as a priced service.

ROE, compared with a 2017 budgeted recovery rate of 97.8 percent. The Reserve Banks incurred lower-than-budgeted operating costs, offsetting lower-than-budgeted volume estimates in key services, which led to a higher-than-expected recovery.

Through August, Fedwire Securities Service online agency transfer volume was 7.9 percent lower than it was during the same period last year. For full-year 2017, the Reserve Banks estimate that Fedwire Securities Service online agency transfer volume will decline 14.7 percent from 2016 levels, compared with a budgeted decline of 11.8 percent. The reduction in volume primarily reflects three market trends. First, JP Morgan Chase is exiting the U.S. government securities clearing and settlement business for its broker-dealer services, which began gradually in 2017 and is targeted to be complete by the end of 2018.³⁴ Second, increase interest rates have led to less prepayment on mortgages and decreasing issuance, which in turn have led to a decrease in settlement activity for agency mortgage-backed securities over Fedwire Securities. Third, the Fixed Income Clearing Corporation launched a new netting settlement logic in January 2016 and launched the Mortgage-Backed Securities (MBS) novation project in mid-

³⁴ JP Morgan Chase announced in July 2016, its intent to exit the government securities clearing and settlement business. In light of JP Morgan Chase's exit, broker-dealer services are housed almost exclusively at BNY Mellon.

2017, in a phased- in approach, which led to the reduction in the number of Agency securities transfers over the Fedwire Securities Service.³⁵

Through August, account maintenance volume was 5.5 percent lower than it was during the same period last year. For full-year 2017, the Reserve Banks estimate that account maintenance volume will decline 5.5 percent from 2016 levels, compared with a budgeted decline of 7.6 percent. The higher-than-expected account maintenance volume is the result of estimated customer account closures not materializing. Through August, the number of agency issues maintained was 3.8 percent lower than the same period last year. For full-year 2017, the Reserve Banks estimate that the number of agency issues maintained will decline 3.1 percent from 2016 levels, compared with a budgeted decline of 2.1 percent.

2. 2018 Pricing — The Reserve Banks expect the Fedwire Securities Service to recover 97.2 percent of total expenses and targeted ROE in 2018. The Reserve Banks project that online agency transfer activity will decline 11.0 percent in 2018, the number of accounts maintained will decrease 3.5 percent, and the number of agency issues maintained will decrease

³⁵ Information on the Fixed Income Clearing Corporation's new settlement logic and the MBS novation project can be found at <http://www.dtcc.com/>.

1.7 percent.³⁶ The Reserve Banks continue to project a decrease in online transfers as JP Morgan Chase's exit from the U.S. government securities clearing and settlement business for its broker-dealer services continues and reaches steady state by the end of 2018 and FICC's netting changes are fully adopted. In addition, if interest rates continue increase, rate increases may lead to less mortgage refinancing, and, in turn, less issuance and settlement activity for mortgage-backed securities over Fedwire Securities. Moreover, the reduction in Agency debt issuance, reflecting the U.S. Treasury and the Federal Housing Finance Agency's requirement for a reduction in government-sponsored enterprise portfolios, will lead to reduced funding needed for new debt issuance.³⁷

Revenue is projected to be \$27.3 million, a decrease of 3.9 percent from the 2017 estimate. The Reserve Banks also project that 2018 expenses will increase by \$0.4 million compared with 2017 expenses, reflecting higher expected operating costs. Higher operating costs in 2018 primarily reflect investments to advance new initiatives to improve resiliency and operational functionality as well as other business and technology initiatives.

³⁶ The online transfer fee, monthly account maintenance fee, and monthly issue maintenance fee accounted for approximately 94 percent of total Fedwire Securities Service revenue through August 2017.

³⁷ Government-sponsored enterprises are reducing their retained portfolio 15 percent annually through 2018, as mandated by the Senior Preferred Stock Purchase Agreements, until each portfolio reaches a target level of \$250 billion. Further information on these agreements can be found at <https://www.fhfa.gov/senior-preferred-stock-purchase-agreements>.

The Reserve Banks will not change Fedwire Securities fees for 2018.

The primary risks to the Reserve Banks' ability to achieve budgeted 2018 cost recovery for these services are lower-than-expected volume resulting from the pace of structural changes in government securities settlement, and cost overruns from new initiatives to improve resiliency and operational functionality.

G. *FedLine Access* — The Reserve Banks charge fees for the electronic connections that depository institutions use to access priced services and allocate the costs and revenue associated with this electronic access to the various priced services. There are currently six FedLine channels through which customers can access the Reserve Banks' priced services: FedMail, FedLine Exchange, FedLine Web, FedLine Advantage, FedLine Command, and FedLine Direct.³⁸ The Reserve Banks package these channels into eleven FedLine packages, described below, that are supplemented by a number of premium (or a la carte) access and accounting information options. In addition, the Reserve Banks offer FedComplete packages, which are bundled offerings of FedLine connections and a fixed number of FedACH, Fedwire Funds, and Check 21-enabled services.

³⁸ FedMail, FedLine Exchange, FedLine Web, FedLine Advantage, FedLine Command, and FedLine Direct are registered trademarks of the Federal Reserve Banks.

Eight attended access packages offer manual access to critical payment and information services via a web-based interface. The FedMail package provides access to basic information services via e-mail, while the two FedLine Exchange packages are designed to provide certain services, such as the E-Payments Routing Directory, to customers that otherwise do not use FedLine for Federal Reserve Financial Services. The two FedLine Web packages offer online attended access to a range of services, including cash services, FedACH information services, and check services. Three FedLine Advantage packages expand upon the FedLine Web packages and offer attended access to critical transactional services: FedACH, Fedwire Funds, and Fedwire Securities.

Three unattended access packages are computer-to-computer, IP-based interfaces. The FedLine Command package offers an unattended connection to FedACH as well as to most accounting information services. The two remaining options are FedLine Direct packages, which allow for unattended connections at one of two connection speeds to FedACH, Fedwire Funds, and Fedwire Securities transactional and information services and to most accounting information services.³⁹

³⁹ None of the FedLine packages offer an unattended connection to check services. The Reserve Banks offer an unattended check product, Check 21 Large File Delivery, outside of FedLine that

The Reserve Banks will modify the existing monthly fees for FedLine Advantage, Command, and Direct and FedComplete packages to include the price of one or two VPN devices, depending on the package, plus the cost of associated vendor maintenance activities.⁴⁰ Historically, customers purchased their VPNs directly from a vendor. As a result, the \$1,500 new customer credit for FedComplete customers will be eliminated. This credit was originally designed to offset the one-time startup costs associated largely with the VPN device purchase. The price modifications to include one VPN device is a price increase of \$35 for FedLine Advantage, FedLine Advantage Plus, and FedLine Command Plus and a price increase of \$50 for FedLine Direct Plus. The price modifications to include two VPN devices is a price increase of \$70 for FedLine Advantage Premier and a price increase of \$100 for FedLine Direct Premier packages. Reserve Bank provisioning of VPN devices will improve resiliency and increase billing efficiency.

The Reserve Banks will also introduce two FedComplete packages, FedComplete 100C Plus and FedComplete 200C Plus, priced at \$1,375 and

allows a depository institution to upload and download check image cash letters automatically via a direct network connection to the Reserve Banks.

⁴⁰ For FedLine Advantage and Command, this hardware is Customer Premises Equipment (CPE) or a Virtual Private Network (VPN) device. For FedLine Direct, the hardware is commonly a Wide Area Network (WAN) router.

VPN devices are being upgraded to Sprint's VPN Managed Solution starting 2018 through 2020 as part of a three-year refresh cycle. New devices will be provisioned to customers, in waves, starting mid-2018.

\$1,900 per month, respectively.⁴¹ These packages will capitalize on existing FedComplete pricing discounts and include the FedLine Command access solution. The packages are targeted toward lower-volume customers to help automate their processing of SameDay ACH transactions and reduce their overall fees. These new packages will simplify service selection and increase fee predictability.

In addition to the changes above for the 2018 FedComplete packages, the Reserve Banks will make six other package changes to maintain consistency with other product offices' product and pricing changes: (1) Add the SameDay ACH origination participation fee and surcharge; (2) remove FedMail-FedLine Exchange Subscriber 5-pack, consistent with the previously announced unbundling of the FedMail service; (3) increase volume overage surcharges for FedForward, from \$0.01 to \$0.037, FedReturn from \$0.75 to \$0.82, FedACH origination from \$0.0025 to \$0.0035, and Fedwire Funds origination from \$0.70 to \$0.82; (4) implement FedReceipt, FedACH receipt and Fedwire Funds transaction receipt surcharges of \$0.00005, \$0.00035, and \$0.082, respectively; (5) implement a threshold limit of 46 items for FedForward Cash Letters; and (6) adjust

⁴¹ All changes to the existing FedComplete packages for 2018 will also be incorporated in the FedComplete 100C Plus and FedComplete 200C Plus packages.

FedComplete package prices to maintain an effective discount of less than 20 percent compared to the cost of purchasing services separately.⁴²

Finally, the Reserve Banks will increase the legacy software fee for FedLine Direct customers that have not converted to new IBM[®] MQ software. The fee will vary based on the number of customers remaining on the legacy system, up to \$80,000/month through 3/31/18 and up to \$150,000/month thereafter.

The Reserve Banks estimate that the price changes will result in a 4.3 percent average price increase for FedLine customers. This is primarily driven by the VPN device billing changes.

II. ANALYSIS OF COMPETITIVE EFFECT

All operational and legal changes considered by the Board that have a substantial effect on payment system participants are subject to the competitive impact analysis described in the March 1990 policy “The Federal Reserve in the Payments System.”⁴³ Under this policy, the Board assesses whether proposed changes will have a direct and material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services because of differing legal

⁴² Customers that use priced FedMail services will be required to purchase the FedMail-FedLine Exchange Subscriber 5-pack separately.

⁴³ Federal Reserve Regulatory Service (FRRS) 9-1558.

powers or constraints or because of a dominant market position deriving from such legal differences. If any proposed changes create such an effect, the Board must further evaluate the changes to assess whether the benefits associated with the changes —such as contributions to payment system efficiency, payment system integrity, or other Board objectives— can be achieved while minimizing the adverse effect on competition.

The 2018 fees, fee structures, and changes in service will not have a direct and material adverse effect on the ability of other service providers to compete effectively with the Reserve Banks in providing similar services. The changes should permit the Reserve Banks to earn a ROE that is comparable to overall market returns and provide for full cost recovery over the long run.

III. 2018 Fee Schedules

FEDACH SERVICE 2018 FEE SCHEDULE

EFFECTIVE JANUARY 2, 2018.

BOLD INDICATES CHANGES FROM 2017 PRICES

	Fee
FedACH minimum monthly fee	
Originating Depository Financial Institution (ODFI) ⁴⁴	\$50.00
Receiving Depository Financial Institution (RDFI) ⁴⁵	\$40.00
Origination (per item or record)	
Forward or return items	\$0.0035
SameDay Service - forward item ⁴⁶	\$0.0010 surcharge
Addenda record.....	\$0.0015
FedLine Web-originated returns and notification of change (NOC) ⁴⁷	\$0.35
Facsimile Exception Return/NOC ⁴⁸	\$45.00
SameDay Exception Return.....	\$45.00
Automated NOC	\$0.20
Volume-based discounts (based on monthly billed origination volume)⁴⁹ per item	
when origination volume is:	
750,001 to 1,500,000 items per month	\$0.0008 discount
more than 1,500,000 items per month	\$0.0010 discount
Volume-based discounts (based on monthly billed receipt volume)⁵⁰ per item when	
receipt volume is:	
10,000,001 to 15,000,000 items per month	\$0.0002 discount
more than 15,000,000 items per month.....	\$0.0003 discount
Receipt (per item or record)	
Forward Item	\$0.0035

⁴⁴ Any ODFI incurring less than \$50 for the following fees will be charged a variable amount to reach the minimum: Forward value and non-value item origination fees, and FedGlobal ACH origination surcharges.

⁴⁵ Any RDFI not originating forward value and non-value items and incurring less than \$40 in receipt fees will be charged a variable amount to reach the minimum. Any RDFI that originates forward value and nonvalue items incurring less than \$50 in forward value and nonvalue item origination fees will only be charged a variable amount to reach the minimum monthly origination fee.

⁴⁶ This surcharge is assessed on all forward items that qualify for same day processing and settlement and is incremental to the standard origination item fee.

⁴⁷ The fee includes the item and addenda fees in addition to the conversion fee.

⁴⁸ The fee includes the item and addenda fees in addition to the conversion fee. Reserve Banks also assess a \$30 fee for every government paper return/NOC they process.

⁴⁹ Origination volumes at these levels qualify for a waterfall discount which includes all FedACH origination items.

⁵⁰ Origination discounts based on monthly billed receipt volume apply only to those items received by FedACH receiving points and are available only to Premium Receivers.

Return Item	\$0.0075
Addenda record	\$0.0015

Volume-based discounts

Non-Premium Receivers⁵¹ per item when volume is:

750,001 to 12,500,000 items per month ⁵²	\$0.0017 discount
more than 12,500,000 items per month ⁵³	\$0.0019 discount

Premium Receivers, Level One⁵⁴ per item when volume is:

750,001 to 1,500,000 items per month ⁵²	\$0.0017 discount
1,500,001 to 2,500,000 items per month ⁵³	\$0.0017 discount
2,500,001 to 12,500,000 items per month ⁵³	\$0.0018 discount
more than 12,500,000 items per month ⁵³	\$0.0020 discount

Premium Receivers, Level Two⁵⁵ per item when volume is

750,001 to 1,500,000 items per month ⁵²	\$0.0017 discount
1,500,001 to 2,500,000 items per month ⁵³	\$0.0017 discount
2,500,001 to 12,500,000 items per month ⁵³	\$0.0019 discount
more than 12,500,000 items per month ⁵³	\$0.0021 discount

FedACH Bundled Package Pricing Discount

Monthly Bundled Service Package Discount ⁵⁶	\$20.00 discount
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Monthly FedACH Risk[®] Management fees⁵⁷

⁵¹ RDFIs receiving through FedACH less than 90 percent of their FedACH-originated items.

⁵² This per-item discount is a reduction to the standard receipt fees listed in this fee schedule.

⁵³ Receipt volumes at these levels qualify for a waterfall discount which includes all FedACH receipt items.

⁵⁴ RDFIs receiving through FedACH at least 90 percent of their FedACH-originated items, but less than 90 percent of all of their ACH items originated through any operator.

⁵⁵ RDFIs receiving through FedACH at least 90 percent of all of their ACH items originated through any operator.

⁵⁶ To qualify for the discount, a financial institution must meet all of the following criteria in a given month: (1) be charged the minimum monthly fee - forward origination (57208); (2) subscribe to FedLine Web Plus or any higher FedLine[®] access solution; and (3) subscribe to the FedPayments Reporter service, the FedACH RDFI Alert service, or the FedACH Risk Origination Monitoring service.

⁵⁷ Criteria may be set for both the Origination Monitoring Service and the RDFI Alert Service. Subscribers with no criteria set up will be assessed the \$35 monthly package fee.

For up to 5 criteria sets	\$35.00
For 6 through 11 criteria sets.....	\$70.00
For 12 through 23 criteria sets.....	\$125.00
For 24 through 47 criteria sets.....	\$150.00
For 48 through 95 criteria sets.....	\$250.00
For 96 through 191 criteria sets.....	\$425.00
For 192 through 383 criteria sets.....	\$675.00
For 384 through 584 criteria sets.....	\$850.00
For more than 585 criteria sets	\$1,100.00
Risk origination monitoring batch (based on total monthly volume)	
For 1 through 100,000 batches (per batch).....	\$0.007
For more than 100,000 batches (per batch)	\$0.0035

Monthly FedPayments® Reporter Service

FedPayments Reporter Service package pricing includes

ACH Received Entries Detail – Customer and Depository Financial Institution

ACH Return Reason Report – Customer and Depository Financial Institution

ACH Volume Summary by SEC Code – Customer

Customer Transaction Activity

Death Notification

International (IAT)

Notification of Change

Payment Data Information File

Remittance Advice Detail

Remittance Advice Summary

Return Item

Return Ratio

Social Security Beneficiary

Originator Setup

Report Delivery via FedLine Access Solution

On Demand Surcharge \$1.00

Report delivery via FedLine file access solution (monthly fee)

For up to 50 reports.....	\$40.00
For 51 through 150 reports	\$60.00
For 151 through 500 reports	\$110.00
For 501 through 1,000 reports	\$200.00
For 1,001 through 1,500 reports	\$285.00
For 1,501 through 2,500 reports	\$460.00
For 2,501 through 3,500 reports	\$640.00
For 3,501 through 4,500 reports	\$820.00
For 4,501 through 5,500 reports	\$995.00
For 5,501 through 7,000 reports	\$1,225.00
For 7,001 through 8,500 reports	\$1,440.00
For 8,501 through 10,000 reports	\$1,650.00

For more than 10,000 reports.....	\$1,800.00
Premier reports (per report generated) ⁵⁸	
For 1 through 5 reports.....	\$10.00
For 6 through 10 reports.....	\$6.00
For 11 or more reports.....	\$1.00
On Demand Surcharge	\$1.00
ACH Routing Number Activity Report	
For 1 through 5 reports.....	\$10.00
For 6 through 10 reports.....	\$6.00
For 11 or more reports.....	\$1.00
On Demand Surcharge	\$1.00
On-us inclusion	
Participation (monthly fee per RTN).....	\$10.00
Per-item	\$0.0030
Per-addenda.....	\$0.0015
Report delivery via encrypted email (per email)	\$0.20
Other Fees and Discounts	
Monthly fee (per routing number)	
FedACH Participation Fee ⁵⁹	\$65.00
SameDay Service Origination Participation Fee ⁶⁰	\$10.00 surcharge
FedACH Settlement Fee ⁶¹	\$55.00
FedACH Information File Extract Fee	\$150.00
IAT Output File Sort Fee.....	\$75.00
Fixed Participation Fee - Automated NOCs ⁶²	\$5.00
Non-Electronic Input/Output fee ⁶³	
CD/DVD (CD or DVD).....	\$50.00
Paper (file or report)	\$50.00
Fees and Credits Established by NACHA ⁶⁴	
NACHA Same Day Entry fee (per item)	\$0.052
NACHA Same Day Entry credit (per item)	\$0.052 (credit)

⁵⁸ Premier reports generated on demand are subject to the package/tiered fees plus a surcharge.

⁵⁹ The fee applies to routing numbers that have received or originated FedACH transactions during a month. Institutions that receive only U.S. government transactions or that elect to use a private sector operator exclusively are not assessed the fee.

⁶⁰ This surcharge is assessed to any routing number that originates at least one item meeting the criteria for same day processing and settlement in a given month.

⁶¹ The fee is applied to any routing number with activity during a month, including routing numbers of institutions that elect to use a private-sector operator exclusively but also have items routed to or from customers that access the ACH network through FedACH. This fee does not apply to routing numbers that use the Reserve Banks for only U.S. government transactions.

⁶² Fee will be assessed only when automated NOCs are generated.

⁶³ Limited services are offered in contingency situations.

⁶⁴ The fees and credits listed are collected from the ODFI and credited to NACHA (admin network) or to the RDFI (same day entry and unauthorized entry) in accordance with the *ACH Rules*.

NACHA Unauthorized Entry fee (per item)	\$4.50
NACHA Unauthorized Entry credit (per item)	\$4.50 (credit)
NACHA Admin Network fee (monthly fee per RTN)	\$22.00
NACHA Admin Network fee (per entry)	\$0.000185
FedGlobal® ACH Payments⁶⁵	
Fixed Monthly Fee⁶⁶	
Monthly origination volume more than 500 items	\$185.00
Monthly origination volume between 161 and 500 items	\$60.00
Monthly origination volume less than 161 items	\$20.00
Per-item Origination Fee for Monthly Volume more than 500 Items (surcharge)⁶⁷	
Canada service	\$0.50
Mexico service	\$0.55
Panama service	\$0.60
Europe service	\$1.13
Per-item Origination Fee for Monthly Volume between 161 and 500 items (surcharge)⁶⁷	
Canada service	\$0.75
Mexico service	\$0.80
Panama service	\$0.85
Europe service	\$1.38
Per-item Origination Fee for Monthly Volume Less than 160 items (surcharge)⁶⁷	
Canada service	\$1.00
Mexico service	\$1.05
Panama service	\$1.10
Europe service	\$1.63
Other FedGlobal ACH Payments Fees	
Canada service	
Return received from Canada ⁶⁸	\$0.99 (surcharge)
Trace of item at receiving gateway	\$5.50
Trace of item not at receiving gateway	\$7.00
Mexico service	
Return received from Mexico ⁶⁸	\$0.91 (surcharge)
Item trace	\$13.50
Foreign currency to foreign currency (F3X) item originated to Mexico ⁶⁷	\$0.67 (surcharge)
Panama service	
Return received from Panama ⁶⁸	\$1.00 (surcharge)
Item trace	\$7.00

⁶⁵ The international fees and surcharges vary from country to country as these are negotiated with each international gateway operator.

⁶⁶ A single monthly fee based on total FedGlobal ACH Payments origination volume.

⁶⁷ This per-item surcharge is in addition to the standard domestic origination fees listed in this fee schedule.

⁶⁸ This per-item surcharge is in addition to the standard domestic receipt fees listed in this fee schedule.

NOC	\$0.72
Europe service	
F3X item originated to Europe ⁶⁷	\$1.25 (surcharge)
Return received from Europe ⁶⁸	\$1.35 (surcharge)
Item trace	\$7.00

FEDWIRE FUNDS AND NATIONAL SETTLEMENT SERVICES 2018 FEE SCHEDULE

EFFECTIVE JANUARY 2, 2018.

BOLD INDICATES CHANGES FROM 2017 PRICES.

Fedwire Funds Service

	Fee
Monthly Participation Fee	\$95.00
Basic volume-based pre-incentive transfer fee (originations and receipts) – per transfer for the first 14,000 transfers per month.....	\$0.820
additional transfers up to 90,000 per month.....	\$0.245
every transfer over 90,000 per month.....	\$0.160
Volume-based transfer fee with the incentive discount (originations and receipts) – per eligible transfer for ⁶⁹	
the first 14,000 transfers per month.....	\$0.164
additional transfers up to 90,000 per month.....	\$0.049
every transfer over 90,000 per month.....	\$0.032
Surcharge for Off-line Transfers (Originations and Receipts)	\$60.00
Surcharge for End-of-Day Transfer Originations ⁷⁰	\$0.26
Monthly FedPayments Manager import/export fee ⁷¹	\$50.00

⁶⁹ The incentive discounts apply to the volume that exceeds 60 percent of a customer's historic benchmark volume. Historic benchmark volume is based on a customer's average daily activity over the previous five calendar years. If a customer has fewer than five full calendar years of previous activity, its historic benchmark volume is based on its daily activity for as many full calendar years of data as are available. If a customer has less than one year of past activity, then the customer qualifies automatically for incentive discounts for the year. The applicable incentive discounts are as follows: \$0.656 for transfers up to 14,000; \$0.196 for transfers 14,001 to 90,000; and \$0.128 for transfers over 90,000.

⁷⁰ This surcharge applies to originators of transfers that are processed by the Reserve Banks after 5:00 p.m. eastern time.

⁷¹ This fee is charged to any Fedwire Funds participant that originates a transfer message via the FedPayments Manager (FPM) Funds tool and has the import/export processing option setting active at any point during the month.

Surcharge for high-value payments:

> \$10 million	\$0.14
> \$100 million	\$0.36

Surcharge for Payment Notification:

Origination Surcharge ⁷²	\$0.01
Receipt Volume ^{72,73}	N/A

Delivery of Reports – Hard Copy Reports to On-Line Customers..... \$50.00

Special Settlement Arrangements (charge per settlement day)⁷⁴ \$150.00

National Settlement Service

Basic

Settlement Entry Fee	\$1.50
Settlement File Fee	\$30.00

Surcharge for Off-line File Origination⁷⁵ \$45.00

Minimum Monthly Fee⁷⁶ \$60.00

⁷² Payment Notification and End-of-Day Origination surcharges apply to each Fedwire funds transfer message.

⁷³ Provided on billing statement for informational purposes only.

⁷⁴ This charge is assessed to settlement arrangements that use the Fedwire Funds Service to effect the settlement of interbank obligations (as opposed to those that use the National Settlement Service). With respect to such special settlement arrangements, other charges may be assessed for each funds transfer into or out of the accounts used in connection with such arrangements.

⁷⁵ Offline files will be accepted only on an exception basis when a settlement agent's primary and backup means of transmitting settlement files are both unavailable.

⁷⁶ Any settlement arrangement that accrues less than \$60 of charges during a calendar month will be assessed a variable amount to reach the minimum monthly fee.

FEDWIRE SECURITIES SERVICE 2018 FEE SCHEDULE (NON-TREASURY SECURITIES)

EFFECTIVE JANUARY 2, 2018.
BOLD INDICATES CHANGES FROM 2017 PRICES.

	Fee
Basic Transfer Fee	
Transfer or reversal originated or received	\$0.77
Surcharge ⁷⁷	
Offline origination & receipt surcharge	\$80.00
Monthly Maintenance Fees	
Account maintenance (per account).....	\$57.50
Issues maintained (per issue/per account).....	\$0.77
Claim Adjustment Fee ⁷⁸	\$0.80
GNMA Serial Note Stripping or Reconstitution Fee ⁷⁹	\$9.00
Joint Custody Origination Surcharge ⁸⁰	\$46.00
Delivery of Reports – Hard Copy Reports to On-Line Customers	\$50.00

⁷⁷ This surcharge is set by the Federal Reserve Banks. It is in addition to any basic transfer or reversal fee.

⁷⁸ The Federal Reserve Banks offer an automated claim adjustment process only for Agency mortgage-backed securities.

⁷⁹ This fee is set by and remitted to the Government National Mortgage Association (GNMA).

⁸⁰ The Federal Reserve Banks charge participants a Joint Custody Origination Surcharge for both Agency and Treasury securities.

FEDLINE 2018 FEE SCHEDULE

EFFECTIVE JANUARY 2, 2018.
BOLD INDICATES CHANGES FROM 2017 PRICES.

	Fee
<u>FedComplete Packages (monthly)</u> ^{81, 82, 83}	
FedComplete 100A Plus	\$825.00
includes FedLine Advantage Plus package	
FedLine subscriber 5-pack	
7,500 FedForward transactions	
46 FedForward Cash Letter items	
70 FedReturn transactions	
14,000 FedReceipt [®] transactions	
35 Fedwire funds origination transfers	
35 Fedwire funds receipt transfers	
Fedwire participation fee	
1,000 FedACH origination items	
FedACH minimum fee	
7,500 FedACH receipt items	
FedACH receipt minimum fee	
10 FedACH web return/NOC	
500 FedACH addenda originated	
1,000 FedACH addenda received	
100 FedACH Same-Day origination items	
FedACH account servicing	
FedACH settlement	
FedACH Same-Day origination participation fee	
FedComplete 100A Premier	\$900.00
includes FedLine Advantage Premier package	
Volumes included in the FedComplete 100A Plus package	
FedComplete 100C Plus	\$1,375.00
includes FedLine Command Plus package	

⁸¹ FedComplete packages are all-electronic service options that bundle payment services with an access solution for one monthly fee.

⁸² Packages with an 'A' include the FedLine Advantage channel, while packages with 'C' include the FedLine Command channel.

⁸³ FedComplete customers that use the email service would be charged the FedMail Email a la carte fee and for all FedMail-FedLine Exchange Subscriber 5-packs.

Volumes included in the FedComplete 100A Plus package

FedComplete 200A Plus \$1,350.00

includes FedLine Advantage Plus package
 FedLine subscriber 5-pack
 25,000 FedForward transactions
46 FedForward Cash Letter items
 225 FedReturn transactions
 25,000 FedReceipt transactions
 100 Fedwire funds origination transfers
 100 Fedwire funds receipt transfers
 Fedwire participation fee
 2,000 FedACH origination items
 FedACH minimum fee
 25,000 FedACH receipt items
 FedACH receipt minimum fee
 20 FedACH web return/NOC
 750 FedACH addenda originated
 1,500 FedACH addenda received
200 FedACH Same-Day origination items
 FedACH account servicing
 FedACH settlement
FedACH Same-Day origination participation fee

FedComplete 200A Premier \$1,425.00

includes FedLine Advantage Premier package
 Volumes included in the FedComplete 200A Plus package

FedComplete 200C Plus \$1,900.00

includes FedLine Command Plus package
Volumes included in the FedComplete 200A Plus package

FedComplete Excess Volume and Receipt Surcharge⁸⁴

FedForward.....\$0.037/item
FedReturn.....\$0.8200/item

⁸⁴ Per-item surcharges are in addition to the standard fees listed in the applicable priced services fee schedules.

FedReceipt	\$0.00005/item
Fedwire Funds Origination	\$0.8200/item
Fedwire Funds Receipt	\$0.082/item
FedACH Origination	\$0.0035/item
FedACH Receipt	\$0.00035/item

FedComplete credit adjustment	various
FedComplete debit adjustment	various

FedLine Customer Access Solutions (monthly)

FedMail⁸⁵ \$85.00

includes FedMail access channel
FedACH Advice and Settlement Information
Fedwire Funds Offline Advices
Check 21 Services
Check 21 Duplicate Notification Service
Check Adjustments
Accounting Statements
Daylight Overdraft Reports
Billing Statements

⁸⁵ FedMail and FedLine Exchange packages do not include user credentials, which are required to access priced services and certain informational services. Credentials are sold separately in packs of five via the FedMail-FedLine Exchange Subscriber 5-pack.

FedLine Exchange ⁸⁵	\$40.00
includes	E-Payments Routing Directory (manual download)
FedLine Exchange Premier ⁸⁵	\$125.00
includes	FedLine Exchange package
	E-Payments Routing Directory (auto download)
FedLine Web ⁸⁶	\$110.00
includes	FedLine Web access channel
	Services included in the FedLine Exchange package
	Check FedForward, FedReturn and FedReceipt services
	Check Adjustments
	FedACH Information Services & Derived Returns/NOCs
	FedACH Risk Services (includes RDFI Alert and Returns Reporting)
	FedCash [®] Services
	Service Charge Information
FedLine Web Plus ⁸⁶	\$160.00
includes	FedLine Web package
	FedACH Risk Origination Monitoring Service
	FedACH FedPayments Reporter Service
	Check Large Dollar Return
	Check FedImage Services
	Account Management Information
	Various accounting and inquiry services (ABMS inquiry, IAS/PSR inquiry, IAS detailed inquiries, notifications and advices, end-of-day accounting file (PDF))
	E-Payments Routing Directory (auto download)
FedLine Advantage⁸⁶	\$415.00
includes:	FedLine Advantage access channel
	One VPN device
	Services included in the FedLine Web package
	FedACH transactions
	Fedwire Funds transactions
	Fedwire Securities transactions
	National Settlement Service transactions
	Check Large Dollar Return
	Check FedImage Services

⁸⁶ FedLine Web and Advantage packages do not include user credentials, which are required to access priced services and certain informational services. Credentials are sold separately in packs of five via the FedLine Subscriber 5-pack.

Account Management Information with Intra-Day Download Search File
 Various accounting and inquiry services (ABMS inquiry, IAS/PSR inquiry, IAS
 detailed inquiries, notifications and advices, end-of-day accounting file (PDF))

FedLine Advantage Plus⁸⁶ \$460.00

includes FedLine Advantage package

One VPN device

FedACH Risk Origination Monitoring Service

FedACH FedPayments Reporter Service

Fedwire Funds FedPayments Manager Import/Export (less than 250 Fedwire
 transactions and one routing number per month)

FedTransaction Analyzer[®] (less than 250 Fedwire transactions and one routing
 number per month)

E-Payments Routing Directory (auto download)

FedLine Advantage Premier⁸⁶ \$570.00

includes FedLine Advantage Plus package

Two VPN devices

Fedwire Funds FedPayments Manager Import/Export (more than 250 Fedwire
 transactions or more than one routing number in a given month)

FedTransaction Analyzer (more than 250 Fedwire transactions or more than one
 routing number per month)

FedLine Command Plus \$1,035.00

includes FedLine Command access channel

Services included in the FedLine Advantage Plus package

One VPN device

Two FedLine Command server certificates

Fedwire Statement Services

Fedwire Funds FedPayments Manager Import/Export

FedTransaction Analyzer

Intra-Day File (I-Day CI File)

Statement of Account Spreadsheet File (SASF)

Financial Institution Reconciliation Data File (FIRD)

Billing Data Format File (BDFF)

FedLine Direct Plus \$3,650.00

includes FedLine Direct access channel

One VPN device

256K Dedicated WAN Connection

Services included in the FedLine Command Plus package

Two FedLine Direct server certificates

Treasury Check Information System (TCIS)

FedLine Direct Premier..... \$6,800.00

includes FedLine Direct Plus package

T1 dedicated WAN connection

Two VPN devices

A la carte options (monthly)⁸⁷

Electronic Access

FedMail - FedLine Exchange Subscriber 5-pack \$15.00

FedLine Subscriber 5-pack (access to Web and Advantage) \$80.00

Additional FedLine Command Certificate⁸⁸ \$100.00

Additional FedLine Direct Certificate⁸⁹ \$100.00

Additional VPNs⁹⁰ \$100.00

Additional dedicated connections

256K \$2,500.00

T1 \$3,200.00

FedLine International Setup (one-time fee)..... \$5,000.00

FedLine Custom Implementation Fee⁹¹ various

Network Diversity \$2,000.00

FedLine Direct Contingency Solution \$1,000.00

Check 21 Large File Delivery⁹² various

⁸⁷ These add-on services can be purchased only with a FedLine Customer Access Service option.

⁸⁸ Additional FedLine Command Certificates available for FedLine Command and Direct packages only.

⁸⁹ Additional FedLine Direct Certificates available for FedLine Direct packages only.

⁹⁰ Additional VPNs are available for FedLine Advantage, FedLine Command, and FedLine Direct packages only.

⁹¹ The FedLine Custom Implementation Fee is \$2,500 or \$5,000 based on the complexity of the setup.

⁹² The fee ranges from \$1,400 to \$20,725 depending on the size, speed, and location of the connection.

FedMail Email (for FedLine customers)	\$20.00
FedMail Fax	\$100.00
VPN Device Modification	\$200.00
VPN Device Missed Activation Appointment.....	\$175.00
VPN Device Expedited Hardware Surcharge.....	\$100.00
VPN Device Replacement or Move	\$300.00
E-Payments Automated Download (1-5 Add'l Codes)	\$75
E-Payments Automated Download (6-20 Add'l Codes)	\$150
E-Payments Automated Download (21-50 Add'l Codes)	\$300
E-Payments Automated Download (51-100 Add'l Codes)	\$500
E-Payments Automated Download (101-250 Add'l Codes)	\$1,000
E-Payments Automated Download (>250 Add'l Codes)	\$2,000

Electronic Access Training

Learning Center	complimentary
Certificate Retrieval Download Tutorial	complimentary

Accounting Information Services

Cash Management System (CMS) Plus – Own report – up to six files with:⁹³

.....no respondent/sub-account activity.....	\$60.00
less than 10 respondent and/or sub-accounts	\$125.00
10-50 respondent and/or sub-accounts.....	\$250.00
51-100 respondents and/or sub-accounts	\$500.00
101-500 respondents and/or sub-accounts	\$750.00
>500 respondents and/or sub-accounts	\$1,000.00
End-of-Day Financial Institution Reconciliation Data File ⁹⁴	\$150.00
Statement of Account Spreadsheet File ⁹⁵	\$150.00
Intra-day Download Search File (with AMI) ⁹⁶	\$150.00
ACTS Report ⁹⁷	
<= 20 sub-accounts	\$500.00

⁹³ Cash Management Service options are limited to plus and premier packages.

⁹⁴ The End of Day Reconciliation File option is available for FedLine Web Plus, FedLine Advantage Plus, and Premier packages. It is available for no extra fee in FedLine Command Plus and Direct packages.

⁹⁵ The Statement of Account Spreadsheet File option is available for FedLine Web Plus, FedLine Advantage Plus, and Premier packages. It is available for no extra fee in FedLine Command Plus and Direct packages.

⁹⁶ The Intra-day Download Search File option is available for the FedLine Web Plus package. It is available for no extra fee in FedLine Advantage and higher packages.

⁹⁷ ACT Report options are limited to FedLine Command Plus, FedLine Direct Plus, and FedLine Direct Premier packages.

21-40 sub-accounts	\$1,000.00
41-60 sub-accounts	\$1,500.00
>60 sub-accounts	\$2,000.00

Other

Software Certification

Vendor Pass-Through Fee	various
Electronic Access Credit Adjustment	various
Electronic Access Debit Adjustment	various
Legacy Software Fee ⁹⁸	various

⁹⁸ The fee will vary based on the number of customers remaining on the legacy system, up to \$80,000/month through 3/31/18 and up to \$150,000/month thereafter.

By order of the Board of Governors of the Federal Reserve System, November 6, 2017.

Margaret McCloskey Shanks,
Deputy Secretary of the Board.

BILLING CODE: 6210-01-P

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